

Amendments to the Claims

Please cancel Claims 5, 6, 9 - 14, 16 - 20, 28 - 33 and 35. Please amend Claims 1, 4, 7, 8, 15, 21, 23, 24 and 27. Please add new Claims 36 - 39. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently amended) An electromagnetic radiation-absorbing particle comprising:
 - (a) a core; and
 - (b) a shell ~~, wherein the shell encapsulating~~[[es]] the core; [[and]]
 wherein ~~either the core or the shell~~ comprises a first conductive material ~~, said material~~
 having a negative real part of the dielectric constant in a predetermined spectral band; and
 wherein ~~either~~ the shell comprises a material selected from the group consisting of
 - (i) ~~the core comprises a first conductive material and the shell comprises a~~
 second conductive material different from the first conductive material;
 - ~~or and~~
 - (ii) ~~either the core or the shell comprises a refracting material with a~~
 refraction index greater than about 1.8.
2. (Original) The particle of claim 1 wherein said particle exhibits an absorption cross-section greater than 1 in a predetermined spectral band.
3. (Original) The particle of claim 1 wherein the particle is substantially spherical.
4. (Currently amended) The particle of claim 3 wherein the particle has a diameter from about [[1]] 0.1 nm to about 300 nm.
- 5 - 6. (Cancelled)

7. (Currently amended) The particle of claim 1 wherein ~~either the core or the shell~~ material is selected from a group consisting of Ag, Al, Mg, Cu, Ni, Cr, TiN, ZrN, and HfN, ~~Si, ZrO₂, and TiO₂.~~
8. (Currently Amended) The particle of claim 1 wherein both the core and the shell comprise conductive materials, and wherein the materials of the core and the shell are selected so that the particle exhibits a peak of absorption in a range of wavelengths from about ~~[[350]]~~ 200 nm to about ~~[[450]]~~ 750 nm.
- 9 - 14. (Cancelled)
15. (Currently amended) The particle of claim 1 wherein ~~either the core or the shell~~ comprises a refracting material ~~with a refraction index greater than about 1.8,~~ and wherein thickness of the shell and/or the size of the core are independently adjusted so that the particle exhibits a peak of absorption in a range of wavelengths from about 200 ~~[[350]]~~ nm to about ~~[[450]]~~ 750 nm.
- 16 - 20. (Cancelled)
21. (Currently amended) A method of manufacturing a particle that absorbs a particular range of radiation comprising the step of encapsulating a core with a shell, wherein ~~either the core or the shell~~ comprises a first conductive material, ~~said material~~ having a negative real part of the dielectric constant in a predetermined spectral band; and wherein the shell comprises a material selected from the group consisting of either
- ~~(i) the core comprises a first conductive material and the shell~~
comprises a second conductive material different from the first conductive material; ~~or~~ and
 - ~~(ii) either the core or the shell comprises a refracting material with a refraction index greater than about 1.8.~~

22. (Original) The method of claim 21 wherein the core comprises a first conductive material and the shell comprises a second conductive material different from the first conductive material, and wherein the first and the second conducting materials are selected so that the particle exhibits a peak of absorption in a desired spectral band.
23. (Currently amended) The method of claim 21 wherein ~~either the core or the shell~~ comprises a refracting material ~~with a refraction index greater than about 1.8~~, and wherein the thickness of the shell is selected so that the particles exhibits a peak of absorption in a desired spectral band.
24. (Currently amended) An electromagnetic radiation-absorptive material for substantially blocking passage of a selected spectral band of radiation comprising:
- (a) a carrier material; and
 - (b) a particulate material dispersed in the carrier material with a primary particle comprising a core and a shell encapsulating said core, and wherein ~~either the core or the shell~~ comprises a first conductive material, ~~said material~~ having a negative real part of the dielectric constant in a predetermined spectral band; and
- wherein the shell comprises a material selected from the group consisting of either
- ~~(i) the core comprises a first conductive material and the shell comprises a second conductive material different from the first conductive material; or~~
 - and
 - ~~(ii) either the core or the shell comprises a refracting material with a refraction index greater than about 1.8.~~
25. (Original) The material of claim 24 wherein the carrier is selected from the group consisting of glass, polyethylene, polypropylene, polymethylmethacrylate, polystyrene, and copolymers thereof.
26. (Original) The material of claim 24 further comprising one or more distinct particulate materials.

27. (Currently amended) The material of claim 24 wherein the material is selected from the group consisting of ink, paint, lotion, gel, film and solid.
- 28 - 33. (Cancelled)
34. (Original) The material of claim 24 wherein the primary particles are further embedded in beads.
35. (Cancelled)
36. (New) The particle of Claim 1 wherein the shell material is selected from the group consisting of Ag, Al, Mg, Cu, Ni, Cr, TiN, ZrN and HfN.
37. (New) The particle of Claim 1 wherein the shell material is selected from the group consisting of Si, ZrO₂ and TiO₂ and Al₂O₃.
38. (New) The material of Claim 24 wherein the material is a textile, textile-like, or a foam matrix selected from a group consisting of gauze, rayon, polyester, polyurethane, polyolefin, cellulose and its derivatives, cotton, orlon, nylon, and hydrogel polymeric materials.
39. (New) The material of claim 27 wherein the material is attached to a self-adhering elastomeric bandage.